

WHAT IS CLAIMED IS:

1. In a device for editing and authoring object-based AV (audio and visual) contents using the MPEG-4(moving picture experts group 4) method, an object-based MPEG-4 contents editing and authoring device comprising:

5 an extensible description generator for receiving either of an MPEG-4 textual format or internal data structure information of object-based MPEG-4 contents, and MPEG-7(moving picture experts group 7) descriptions of the MPEG-4 contents, and generating an XML (extensible markup language) based textual format file including the MPEG-7 descriptions;

10 an extensible description/binary converter for receiving the XML based textual format file including the MPEG-7 descriptions generated by the extensible description generator, and generating them as a binary file; and

15 an XML based contents storage unit for storing the XML based textual format file generated by the extensible description generator and the binary file generated by the extensible description/binary converter.

2. The device of claim 1, further comprising:

an MPEG-4 contents storage unit for storing the object-based MPEG-4 contents; and

20 an MPEG-7 description generator for generating MPEG-7 descriptions of the MPEG-4 contents stored in the MPEG-4 contents storage unit.

3. The device of claim 1, wherein the XML based contents storage unit stores either of the textual format or the binary file generated on the XML basis, and storage information of the MPEG-4 contents storage unit of the

MPEG-4 contents related to the corresponding XML based file.

4. An object-based MPEG-4(moving picture experts group 4) contents editing and authoring method comprising:

receiving one of a textual file and an internal data structure of object-based MPEG-4 contents stored in a contents database;

receiving MPEG-7(moving picture experts group 7) descriptions of the object-based MPEG-4 contents; and

combining either of the textual file or the internal data structure of the object-based MPEG-4 contents with the MPEG-7 descriptions, generating them into an XML(extensible markup language) based textual format file, and storing the XML based textual format file.

5. The method of claim 4, further comprising converting the XML based textual format file into a binary file, and storing the binary file.

6. An object-based MPEG-4(moving picture experts group 4) contents editing/authoring and retrieving device comprising:

a contents editor/author for receiving either of an MPEG-4 textual format or internal data structure information of object-based MPEG-4 contents, and MPEG-7(moving picture experts group 7) descriptions of the MPEG-4 contents, combining them, editing or authoring them as an XML(extensible markup language) based textual format file or a binary file, and storing it;

a contents storage unit for extracting MPEG-7 description information of the XML based textual format file edited, authored, and stored by the contents editor/author, and storing the MPEG-7 description

information for a retrieval process; and

a retrieval browser/reproducer for providing a user interface for retrieving MPEG-7 description information stored in the contents retriever, and reproducing the retrieved contents.

5 7. The device of claim 6, wherein the contents editor/author comprises:

an extensible description generator for receiving either of an MPEG-4 textual format or internal data structure information of object-based MPEG-4 contents, and MPEG-7 descriptions of the MPEG-4 contents, and
10 generating an XML based textual format file including the MPEG-7 descriptions;

an extensible description/binary converter for receiving the XML based textual format file including the MPEG-7 descriptions generated by the extensible description generator, and generating them as a binary file; and

15 an XML based contents storage unit for storing the XML based textual format file generated by the extensible description generator and the binary file generated by the extensible description/binary converter.

8. The device of claim 6, wherein the contents retriever comprises:

20 a file parsing module for receiving the XML based textual format file or the binary file produced using the MPEG descriptions, and extracting MPEG-7 descriptions included in the corresponding file;

an MPEG-7 description storage unit for generating the MPEG-7 description information extracted from the file parsing module into a database, and storing the information; and

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a retrieval module for retrieving the MPEG-7 description information stored in the MPEG-7 description storage unit according to a request by a user, and outputting corresponding results.

9. The device of claim 6, wherein the retrieval browser/reproducer

5 comprises:

a retrieval browser for receiving a retrieval request from a user, commanding the contents retriever to perform retrieval, receiving retrieval results, and outputting them to the user; and

10 a reproducer for reproducing the contents retrieved through the retrieval browser.

10. An object-based MPEG-4(moving picture experts group 4) contents retrieving method comprising:

(a) receiving a user's request for contents retrieval through a retrieval browser, and retrieving MPEG-7(moving picture experts group 7) 15 description information stored in an MPEG-7 description storage unit at a retrieval module;

(b) receiving retrieval results from the retrieval browser, and displaying the retrieval results;

20 (c) allowing the user to select desired contents from among the displayed results; and

(d) loading the contents selected from the retrieval browser from a storage unit, and driving a reproducer to reproduce the loaded data.

11. The method of claim 10, wherein (a) further comprises:

allowing the user to input a keyword through the retrieval browser

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and request retrieval;

retrieving an MPEG-7 description information storage unit at the retrieval module by using the keyword; and

generating retrieval results into a list, and transmitting the list to the

5 retrieval browser.

12. The method of claim 10, wherein (d) comprises analyzing original contents storage information stored in the MPEG-7 description storage unit, and loading the original contents storage information.